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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,186	11/05/2001	Yasushi Kohno	TKA0032	5700

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EXAMINER	
VALENTI, ANDREA M	

ART UNIT	PAPER NUMBER
3643	

DATE MAILED: 05/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,186	KOHNO, YASUSHI	
	Examiner	Art Unit	
	Andrea M. Valenti	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

RW

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant has not claimed nor clearly defined in the specification the "sufficient period of time to inhibit defective germination or rosette formation" for the hydration step. How long is this, 12 hours or 3 months? How is this time period determined for different seed species? Applicant has not clearly defined in the specification what "defective germination" is, is it merely the speed/rate of germinations, the quality of the seedling, the success rate of the number of seeds sowed and the number that actually germinate?

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 4 recites the limitation "the dark place" in Claim 1 line 11 and Claim 4 line 12. There is insufficient antecedent basis for this limitation in the claim. Applicant had established a dark place for hydrating, but had not antecedent basis for a dark place for drying. Also, the language of the last statement of each claim it is still not clear whether applicant is claiming that the seed is dried in the dark. For examination purposes the examiner has taken the assumption that applicant means that it was dried in the dark.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,107,051 to Job et al in view of U.S. Patent No. 5,294,593 to Khan.

Regarding Claims 1 and 4, Job teaches a method of preventing defective germination of a plant seed which tends to suffer from defective germination during growth thereof (Job Col. 1 line 41-60 and line 51 since pre-sowing hydration treatment is an old and notoriously well-known means for improvement of germination quality, it inherently reduces defective germination) comprising the steps of: a) leaving the pant seed to stand in a highly watery condition at a low temperature in a dark place for sufficient period of time to inhibit defective germination or rosette formation of the plant seed, the dark place being sufficiently dark to prevent the plant seed from germinating

(Job Col. 3 line 39-44); and b) drying the plant seed immediately after leaving the plant seed to stand in the highly watery condition at the low temperature in a dark place (Job Col. 3 line 44-46, at this point applicant's sentence structure indicates that the seeds were in a highly watery condition at the low temperature in a dark place, but not that the seeds were dried in a dark place), before the seed becomes active, wherein in the step a) of leaving the plant seed in a highly watery condition the plant seed is immersed in water at a temperature of from 0-15 degrees C (Job Col. 3 line 65 and Col. 4 line 6 and line 17-30 that lower temperatures allows for a more controlled hydration) and a inherently relative humidity of 100% (Job teaches the seeds are "soaked" in a cover dish thus the humidity is 100% Col. 3 line 46-50) and wherein in the step b) of drying the plant seed (Job Col. 3 line 45 and Col. 3 line 55-56 teaches they are store in the dark). However, Job does not implicitly teach that the seeds are dried in a dark place sufficiently dark to prevent exposure of the plant seed to an amount of light that is sufficient to cause the plant seed to germinate. Khan teaches that it is old and notoriously well-known to dry hydrated seeds in the dark to prevent germination (Khan Col. 3 line 40-49). It would have been obvious to one of ordinary skill in the art to modify the teachings of Job with the teachings of Khan at the time of the invention for the advantage of preventing germination to enable the seeds to be store for a duration of time after treatment.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over An evaluation of the potential of low temperature pre-sowing treatments of tomato

seeds as a means of improving germination performance, Ann. Appl. Biol. (1987), 110, pg. 185-195 by Coolbear et al. in view of U.S. Patent No. 5,294,593 to Khan.

Regarding Claims 1 and 4, Coolbear et al teaches a method of preventing defective germination of a plant seed which tends to suffer from defective germination during growth thereof (Coolbear Summary line 1 and Introduction line 1 since pre-sowing hydration treatment is an old and notoriously well-known means for improvement of germination quality, it inherently reduces defective germination) comprising the steps of: a) leaving the pant seed to stand in a highly watery condition at a low temperature in a dark place for sufficient period of time to inhibit defective germination or rosette formation of the plant seed, the dark place being sufficiently dark to prevent the plant seed from germinating (Coolbear Methods first two sentences); and b) drying the plant seed immediately after leaving the plant seed to stand in the highly watery condition at the low temperature in a dark place (Coolbear Methods lines 4-6), at this point applicant's sentence structure indicates that the seeds were in a highly watery condition at the low temperature in a dark place, but not that the seeds were dried in a dark place), before the seed becomes active, wherein in the step a) of leaving the plant seed in a highly watery condition the plant seed is immersed in water at a temperature of from 0-15 degrees C (Coolbear Methods second sentence) and a inherently relative humidity of 100% (Coolbear teaches the seeds are in a cover dish and are continuously kept moist thus the humidity is 100%, Methods line 2-4) and wherein in the step b) of drying the plant seed (Coolbear Methods line 5). However, Job does not implicitly teach that the seeds are dried in a dark place sufficiently dark to prevent exposure of the plant

seed to an amount of light that is sufficient to cause the plant seed to germinate. Khan teaches that it is old and notoriously well-known hydrate and to dry seeds in the dark to prevent germination (Khan Col. 3 line 40-49). It would have been obvious to one of ordinary skill in the art to modify the teachings of Job with the teachings of Khan at the time of the invention for the advantage of preventing germination to enable the seeds to be store for a duration of time after treatment.

Response to Arguments

Applicant's arguments with respect to claims 1 and 4 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea M. Valenti whose telephone number is 571-272-6895. The examiner can normally be reached on 7:00am-5:30pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrea M. Valenti
Patent Examiner
Art Unit 3643

4 May 2005

Peter M. Poon
Supervisory Patent Examiner
Technology Center 3600